

Categorical Exclusion: Good Springs Substation Expansion

A. Background

DOI-BLM-NV-S010-2014-0144-CX

NV Energy is a private corporation with a Certificate of Public Convenience and Necessity issued by the Public Utilities Commission of Nevada to provide electric service in the certificated area of Clark County and a portion of Nye County. The company currently occupies and manages 1,100+ BLM rights-of-way in the States of Nevada, Utah, and Arizona.

BLM Office:

Bureau of Land Management
Las Vegas Field Office
4701 N. Torrey Pines Drive
Las Vegas, Nevada 89130

LLNVS01000

Lease/Serial/Case File No.:

N-93326 & N-93326-01

Proposed Action Title/Type:

ROW grant to receives a right to construct, operate, maintain, and terminate a 69/12kV substation with related appurtenances and a STR for a temporary construction area on public lands. The expansion will ensure the continued safe and reliable operation of the facility.

Location of Proposed Action:

Located in Good Spring, Nevada.

M.D.M., Nevada, T. 24 S., R. 58 E., sec. 23, SE¼SE¼.

Description of Proposed Action: On July 18, 2014, NV Energy submitted an application for an existing 69/12kV substation 50ft by 70 ft fenced area, and an application for a temporary construction area to expand the existing substation. The expansion will expand the substation to be 80ft by 80 ft (.15 acres) to add 48VDC batteries and related appurtenances (charger and associated control wiring) and a 16ft by 10 ft air-conditioned enclosure to shelter the batteries. The expansion will allow sufficient room for maintaining the substation. The temporary construction area needed is 20ft wide by 320ft long (.15 acres). Construction will take approximately eight weeks and will include removing trip coils from two existing 12kv breakers, installing new batteries and enclosure replace existing station service transformer and install additional fencing.

B. Land Use Plan Conformance

Land Use Plan Name:

Las Vegas Resource Management Plan and Final Environmental Impact Statement (RMP), and the record of decision for the approved Las Vegas Resource Management Plan and Final Environmental Impact Statement.

Date Approved/Amended:

RMP dated October 5, 1998

The proposed action is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decision(s) (objectives, terms, and conditions) :

ROW Management Objective: RW-1. "Meet public Demand and reduce impacts to sensitive resources by providing an orderly system of development for transportation, including legal access to private inholdings, communization's, flood control, major utility transmission lines, and related facilities.

Management Direction. Objective: RW-1-h. "All public land within the planning area, except as stated in RW-1-c through RW-1-g, are available at the discretion of the agency for rights-of-way under the authority of the Federal Land Policy and Management Act."

C. Compliance with NEPA:

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 2, Appendix 1, or 516 DM 11.9, E. (12): "Grants of right-of-way wholly within the boundaries of other compatibly developed rights-of-way."

Grants located within the area are:

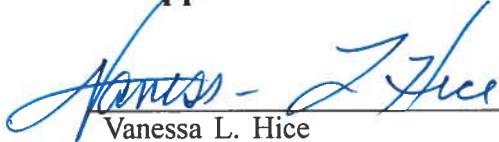
N-16022- NV Energy — Transmission line

This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 516 DM 2 apply.

Comments providing substantive new information relevant to the analysis and mitigation measures have been incorporated into the Exhibit A Stipulations which are attached to this document.

I have reviewed the plan conformance statement and have determined that the proposed action is in conformance with the approved land use plan and no further environmental analysis is required

D. Approval and Contact Information



Vanessa L. Hice
Assistant Field Manager
Division of Lands

3/12/15
Date

Contact Person

Vivian Browning, Realty Specialist
Las Vegas Field Office
4701 N. Torrey Pines Drive
Las Vegas, Nevada 89130
(702) 515-5013

Exhibit A
Stipulations N-93326 & N-93326-01

1.0 Special Stipulations

- 1.1. The Holder shall notify the Bureau of Land Management (BLM), Wildlife Biologist staff, at 702-515-5000 of their construction schedule at least 10 days before initiation of the project. Failure to abide by the terms and conditions of the grant and Biological Opinion, could result in temporary suspension of all activities within your right-of-way area per 43 CFR 2807.16 and 43 CFR 2807.17.
- 1.2. Should a tortoise be killed, injured, handled, or penned, you will need to have an Authorized Desert Tortoise Biologist complete Appendix E (see attached Terms and Conditions for Biological Opinion). Please forward Appendix E to the BLM, Attn: Wildlife Biologist, 4701 N. Torrey Pines Drive, Las Vegas, Nevada 89130. Failure to abide by the terms and conditions of the grant and Biological Opinion, could result in temporary suspension of all activities within your ROW area per 43 CFR 2807.16 and 43 CFR 2807.17.
- 1.3. The Holder must complete and return Appendix G (see attached Terms and Conditions for Biological Opinion) herein annually and/or upon completion of construction of the project. Please forward Appendix G to the BLM, Attn: Wildlife Biologist, 4701 N. Torrey Pines Drive, Las Vegas, Nevada 89130. Failure to abide by the terms and conditions of the grant and Biological Opinion, could result in temporary suspension of all activities within your ROW area per 43 CFR 2807.16 and 43 CFR 2807.17.
- 1.4. The Holder must abide by monitoring, maintenance, and reporting requirements per the Biological Opinion. Failure to abide by the terms and conditions of the grant and Biological Opinion, could result in temporary suspension of all activities within your ROW area per 43 CFR 2807.16 and 43 CFR 2807.17.

2.0 General Stipulations

- 2.1. The right-of-way (ROW) is issued subject to all valid existing rights.
- 2.2. No signs of advertising devices shall be placed on the premises or on adjacent public lands, except those posted by or at the direction of the authorized officer.
- 2.3. The ROW shall be maintained in a sanitary condition at all times. Waste materials at those sites shall be disposed of promptly at an approved waste disposal site. "Waste", as used in this paragraph, shall mean all discarded matter of any kind.

- 2.4. The holder shall ensure that the road has a proper drainage system and should include the best combination of various design elements, such as ditches, culverts, drainage dips, crowns, low-water crossings, subsurface drains and bridges, per Clark County standards.
- 2.5. Holder shall mark the exterior boundaries of the ROW with stake and/or lath at 100 to 200 foot intervals. The intervals may be varied at the time of staking at the discretion of the Authorized Officer. The tops of the stakes and/or laths will be painted and the laths flagged in a distinctive color as determined by the Holder. Holder shall maintain all boundary stakes and/or laths in place until final cleanup and restoration is completed.
- 2.6. Holder shall conduct all activities associated with construction, operation, maintenance and termination of this ROW within its authorized limits.
- 2.7. Holder shall maintain the ROW in a safe, useable condition, as directed by the Authorized Officer. A regular maintenance program shall include, but is not limited to, soil stabilization.
- 2.8. Pursuant to 43 CFR 2807.17(a) and 43 CFR 2807.17 (3)(c), BLM may suspend or terminate your grant if you do not comply with applicable laws and regulations or any terms, conditions, or stipulations of the grant (such as rent payments), or if you abandon the right-of-way. Failure to use your right-of-way for its authorized purpose for any continuous 5-year period creates a presumption of abandonment.
- 2.9. Holder shall maintain copy of the authorization along with stipulations on construction site at all times. In the event that the public land underlying this ROW, encompassed in this grant, or a portion thereof, is conveyed out of Federal ownership and administration of the ROW or the land underlying the ROW is not being reserved to the United States in the patent/deed and/or the ROW is not within a ROW corridor being reserved to the United States in the patent/deed, the United States waives any right it has to administer the ROW, or portion thereof, within the conveyed land under Federal laws, statutes, and regulations, including the regulations at 43 CFR Part [2800][2880], including any rights to have the holder apply to BLM for amendments, modifications, or assignments and for BLM to approve or recognize such amendments, modifications, or assignments. At the time of conveyance, the patentee/grantee, and their successors and assigns, shall succeed to the interests of the United States in all matters relating to the ROW, or portion thereof, within the conveyed land and shall be subject to applicable State and local government laws, statutes, and ordinances. After conveyance, any disputes concerning compliance with the use and the terms and conditions of the ROW shall be considered a civil matter between the patentee/grantee and the ROW Holder.

- 2.10. Within 90 days of construction completion, the Holder shall provide the Authorized Officer with data in a format compatible with the Bureau's Arc-Info Geographic Information System to accurately locate and identify the ROW:

Acceptable data formats are:

Corrected Global Positioning System files with sub-meter accuracy or better, in UTM NAD 83; Zone 11;
ARCGIS export files on a CD ROM, shapefile, geodatabase.

Data may be submitted in any of the following formats:

ARCGIS interchange, shapefile or geodatabase format.
CD ROM in compressed or uncompressed format.

All data shall include metadata for each coverage, and conform to the Content Standards for Digital Geospatial Metadata Federal Geographic Data Committee standards. Contact the GIS Department at (702) 515-5000.

3.0 Fuels/Fire Management

- 3.1. Fire restrictions are generally enacted May through October. Compliance with fire restrictions is mandatory while fire restrictions are in place. Specific non-compliant activities may be permitted in writing on a case by case basis by a line officer after review and approval by the Fire Management Officer (43 CFR 9212). In the event of an unplanned ignition that causes a wildfire the proponent will be held responsible for all costs of suppression and damaged resources pending a fire Origin and Cause Investigation. An Origin and Cause Investigation will be done on any human caused fire by BLM Law Enforcement or their designated representative. Conditions that support wildland fire spread can occur any time of the year in Southern Nevada. In general and when fire restrictions are not in effect, utilize standard fire prevention measures and best management practices to prevent fires. For the life of the ROW, due diligence is required for maintaining a wildfire defensive space of low to zero vegetation and fuels protect infrastructure from wildfire where appropriate.

4.0 Visual Resources

- 4.1. The proposed action occurs in VRM Class II, which allows for only minimal levels of contrast with the surrounding landscape. However, the project is an expansion of an installation that has been part of the visual landscape for a long time and thus this action should not attract additional attention. Painting the structures a color such as covert green, using non-reflective surfaces, and using screening on the fences would help further reduce any visual impacts.

5.0 Air Quality

- 5.1. The Holder shall not violate applicable air standards or related facility siting standards established by or pursuant to applicable federal, state, or local laws or regulations. The Holder shall be responsible for dust abatement within the limits of the ROW and is responsible for obtaining all necessary permits from appropriate authorities for acceptable dust abatement and control methods (e.g., water, chemicals). The Holder shall be solely responsible for all violations of any air quality permit, law or regulation, as a result of its action, inaction, use or occupancy of the ROW.

Notwithstanding whether a violation of any air quality permit, law or regulation results, the Holder will cooperate with the Authorized Officer in implementing and maintaining reasonable and appropriate dust control methods in conformance with law and appropriate to the circumstances at the sole cost of the Holder.

Prior to relinquishment, abandonment, or termination of this ROW, the Holder shall apply reasonable and appropriate dust abatement and control measures to all disturbed areas. The abatement and measures shall be designed to be effective over the long-term (e.g., rock mulch or other means) and acceptable to the Authorized Officer.

Ensure dust control permit is obtained from DAQ for all soil disturbing activities of .25 acres or greater, in the aggregate and all permit stipulations are in compliance for the duration of the project

- 5.2. During excavation, backfilling, and contouring, the disturbed soil should be wetted sufficiently in order to effectively reduce airborne dust and reduce soil erosion.

6.0 Hazardous Material/Pesticides/Liability/Greenhouse Gas Emission

- 6.1. No hazardous material, substance, or hazardous waste, (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et seq.*, or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) shall be used, produced, transported, released, disposed of, or stored within the ROW area at any time by the Holder. The Holder shall immediately report any release of hazardous substances (leaks, spills, etc.) caused by the Holder or third parties in excess of the reportable quantity as required by federal, state, or local laws and regulations. A copy of any report required or requested by any federal, state or local government agency as a result of a reportable release or spill of any hazardous substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved federal, state or local government agency.

- 6.2. The Holder shall immediately notify the Authorized Officer of any release of hazardous substances, toxic substances, or hazardous waste on or near the ROW potentially affecting the ROW of which the Holder is aware.
- 6.3. As required by law, Holder shall have responsibility for and shall take all action(s) necessary to fully remediate and address the hazardous substance(s) on or emanating from the ROW.
- 6.4. Use of pesticides shall comply with the applicable Federal and state laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the Holder shall obtain from the Authorized Officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers and any other information deemed necessary by the Authorized Officer.

The plan shall be submitted no later than December 1 of any calendar year that covers the proposed activities for the next fiscal year. Pesticides shall not be permanently stored on public lands authorized for use under this ROW.

- 6.5. The Holder shall comply with all applicable local, state, and federal air, water, hazardous substance, solid waste, or other environmental laws and regulations, existing or hereafter enacted or promulgated. To the full extent permissible by law, the Holder agrees to indemnify and hold harmless, within the limits, if any, established by state law (as state law exists on the effective date of the right-of-way), the United States against any liability arising from the Holder's use or occupancy of the ROW, regardless of whether the Holder has actually developed or caused development to occur on the ROW, from the time of the issuance of this ROW to the Holder, and during the term of this ROW. This agreement to indemnify and hold harmless the United States against any liability shall apply without regard to whether the liability is caused by the Holder, its agents, contractors, or third parties. If the liability is caused by third parties, the Holder will pursue legal remedies against such third parties as if the Holder were the fee owner of the ROW.

Notwithstanding any limits to the Holder's ability to indemnify and hold harmless the United States which may exist under state law, the Holder agrees to bear all responsibility (financial or other) for any and all liability or responsibility of any kind or nature assessed against the United States arising from the Holder's use or occupancy of the ROW regardless of whether the Holder has actually developed or caused development to occur on the ROW from the time of the issuance of this ROW to the Holder and during the term of this ROW.

- 6.6. If excavation that produces mineral materials within the ROW is necessary, the mineral materials must be used within the ROW or stockpiled on site for disposal by the BLM. If mineral materials are to be stockpiled on site for a future disposal, specific BLM use authorization in the form of a contract, free use permit or material site right-of-way will be necessary before the stockpiled mineral materials can be removed from the ROW.
- 6.7. Currently there are no emission limits for suspected Greenhouse Gas (GHG) emissions, and no technically defensible methodology for predicting potential climate changes from GHG emissions. However, there are, and will continue to be, several efforts to address GHG emissions from federal activities, including BLM authorized uses.

7.0 Wild Horses and Burros

- 7.1. The Goodsprings Substation is located near the Red Rock Herd Management Area (HMA), there should be no impacts to wild horses or burros due to the location, existing infrastructure, and small size of this project. Individuals will not harass (feed, pet, chase, etc.) wild horses and burros if encountered on or near the project areas. If they do see any wild horses and burros, they should keep a safe distance, they are wild animals and can be unpredictable, especially during foaling and breeding season.

8.0 Survey Monuments

- 8.1. Holder shall protect all survey monuments found within the authorization area. Survey monuments include, but are not limited to, General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, U.S. Coast and Geodetic Survey benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. If any of the above are to be disturbed during operations, the holder shall secure the services of a Professional Land Surveyor or Bureau cadastral surveyor to perpetuate the disturbed monuments and references using surveying procedures found in the Manual of Instructions for the Survey of the Public Lands of the United States and Nevada Revised Statutes, Chapter 329, Perpetuation of Corners.
- 8.2. The holder shall record such survey in the appropriate county and send a copy to the authorized officer. If the Bureau cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monuments, the holder shall be responsible for the survey cost.

9.0 Vegetation/Noxious Weeds/Land surface Treatment/Soil/Water/Riparian

- 9.1. The proposed expansion will occur on land that is already disturbed and will be minimal in acreage. This is not expected to increase the spread of weeds as long as standard precautions are taken. All project actions must conform to applicable BMP's and standard BLM weed stipulations.
- 9.2. During construction and maintenance, standard Weeds mitigation measures should be followed. If noxious weeds spread as a result of project related activities, it will be the responsibility of the proponent to remedy the situation.
- 9.3. Continue to follow existing mitigation measures and stipulations for weed prevention and control as established for the adjacent lease. If no measures exist, then follow the LVFO noxious weed compliance requirements as shown below. Coordinate weed management activities with the District Weed Management Specialist. To avoid spreading noxious and/or invasive weeds, project activities shall include the following stipulations:
 1. The project proponent shall avoid or minimize all types of travel through weed-infested areas. If a problem is identified and avoidance or removal is not possible, the project proponent shall set up inspection and equipment cleaning sites to prevent the spread of weeds.
 2. The project proponent shall limit ground disturbance to the absolute minimum necessary to safely construct and operate the proposed project. The applicant will avoid creating soil conditions that promote weed germination and establishment.
 3. Project related equipment (i.e. undercarriages and wheel wells) will be cleaned of all mud, dirt and plant parts before each tour. Project workers shall inspect, remove, and dispose of weed seed and plant parts found on their clothing and personal equipment, bag the product and dispose of in a dumpster. If you have questions, consult with the LVFO Noxious Weed Coordinator.
- 9.4. No issues that would cause extraordinary circumstances or noncompliance with RMP. Cactus and yucca are considered species forest products regulated under the BLM Nevada Forestry Program. Because the impact area is previously disturbed no impacts to cactus and yucca are expected.
- 9.5. Land surface treatment for areas previously disturbed: Following excavation, trenches will be backfilled with the excavated soil. The soil will be distributed and contoured evenly over the surface of the disturbed area. The soil surface will be left rough to help reduce potential wind erosion.

- 9.6. Land surface treatment for areas previously undisturbed: Strip the top three to six inches of soil material with associated plant material over all surfaces to be disturbed by construction. Stockpile this material along the course of construction will be salvaged and transplanted out of harm's way but still within the ROW. At the conclusion, including trench backfilling and compaction, replace the stockpiled soil with plant debris uniformly back on the surface of the disturbed area.
- 9.7. Soil/Water/Riparian/Floodplains: Applicant must follow guidelines set by the Clark County Regional Flood Control District (CCRFCD) and Clark County specifications for design of drainage systems. If work is to occur in Ephemeral channels, need to consult with Army Corp of Engineers (ACOE) and Nevada Department of Environmental Protection (NDEP). For floodplains, the project is located about 100ft outside of a 100-year FEMA designated floodzone.
- 9.8. If drilling boreholes, holder needs to follow Nevada Administrative Code (NAC) protocols for drilling. Consult with ACOE to make sure you do not need a 404 permit. All holes should be drilled according to the Nevada Regulations for Water Well and Related Drilling, per NRS Statutes 534. All holes should be reclaimed according to NRS and NAC regulations and reclaimed immediately after drilling. If groundwater is intercepted, holes will need to be reclaimed appropriately. Additionally, applicant is responsible for obtaining any CWA permits from NDEP that may be necessary.

10.0 **Migratory Birds**

- 10.1. The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703) protects migratory birds and their nests (nests with eggs or young). The proponent must comply with the MBTA and avoid potential impacts to protected birds within the project area. A list of MBTA protected birds are found in 50 C.F.R. 10.13
<http://www.gpo.gov/fdsys/pkg/CFR-2012-title50-vol1/xml/CFR-2012-title50-vol1-sec10-13.xml>

Migratory birds, including the BLM sensitive species the western burrowing owl (*Athene cunicularia*), may be present on or near the project site. Migratory birds may be displaced by habitat removal and/or noise disturbance during construction activities, but this should be small in scale due to the size of the action.

1) To prevent undue harm, habitat-altering projects should be scheduled outside the bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs from February 15th through August 31st.

2) If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground

nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge. As the above dates are a general guideline, if active nests are observed outside this range they are to be avoided as described above.

11.0 Fish and Wildlife

- 11.1. Wildlife species in the general area include small mammals, birds, and reptiles. Additionally, the BLM is directed to conserve special status species through BLM Manual 6840.

The sensitive species western burrowing owl, Mojave shovel-nosed snake, desert glossy snake, and Mojave Desert sidewinder may be present in the general area. While there is minimal surface disturbance of wildlife habitat associated with this project, these species may be found on the adjacent undisturbed lands and could wander into the proposed project area. The primary direct impact of the proposed action on wildlife would be mortality resulting from construction activities. Wildlife species in the general area are common and widely distributed throughout the area and the loss of some individuals and/or their habitat would have a negligible impact on populations of the species throughout the region. Impacts to BLM Sensitive Species are not anticipated to lead to further decline of the species range wide as the total disturbance for this project is relatively small.

12.0 Threatened and Endangered Wildlife and Plant Species Stipulations

- 12.1. This project will be in compliance with section 7 of the Endangered Species Act of 1973 as amended (16 U.S.C. 1531 et seq.) for consultation with the USFWS on effects to federally listed and candidate species. The above action has a may affect, likely to adversely affect determination for the threatened desert tortoise (*Gopherus agassizii*) and a no effect determination for its designated critical habitat. This project will have no effect on any other federally listed species or designated critical habitat.

Historical survey data indicate that the area surrounding the project site is moderate density tortoise habitat. Since large amounts of undisturbed habitat exist in and adjacent to the project site, there is potential for tortoises to wander into the project area. If not noticed and avoided during construction and maintenance activities, desert tortoises could be either injured or killed (by crushing) or harassed (by being moved out of harm's way).

Section 7 Consultation for this project will be covered under the Programmatic Biological Opinion (84320-2010-F-0365.R002) contingent on compliance with the

terms and conditions. The proposed action is described to result in 0 acres of new surface disturbance, so remuneration fees are not required.

This project will require an authorized desert tortoise biologist, monitor, or other approved by the BLM to present an education program (see Term and Condition 1.e.), an authorized desert tortoise biologist to be on site during the desert tortoise active season (March 1 to October 31), and an authorized desert tortoise biologist to be on call during the desert tortoise inactive season (November 1 to February 28/29) per Terms and Conditions provided. Maintenance activities requiring heavy equipment outside of the fence will require a tortoise monitor to be on site during the desert tortoise active season (March 1 to October 31). Permanent tortoise fencing should be installed along the bottom of the existing fence according to specifications. Particular attention should be paid to the large gap under the entrance gate where tortoises may easily enter (see Term and Condition 1.m.)

Terms and conditions and minimization measures in the above Biological Opinion contain measures to reduce potential impacts, including take, to desert tortoise. A copy of the terms and conditions has been uploaded to ePlanning (Sec 7 Log # NV-052-14-215). This notice will serve as the Section 7 Determination and no additional paperwork will be provided.

- 12.2. The Holder will comply with the terms and conditions of the **Biological Opinion for this project** on file at the Bureau of Land Management, Las Vegas Field Office and included below.

Case Number: N-93326, N-93326-01
NEPA Project #: DOI-BLM-NV-S010-2014-0144-CX
Sec. 7 Log #: NV-052-14-215

TERMS AND CONDITIONS for ROWs: BO File No. 84320-2010-F-0365.R002

In order to be exempt from the prohibitions of section 9 of the Act, the Bureau must comply with the following terms and conditions and minimization measures, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

RPM 1: Applies towards lands and realty, ROWs, and mining actions and other activities that involve vehicle and equipment use, excavations, or blasting.
BLM, and other jurisdictional Federal agencies as appropriate, shall implement or ensure implementation of measures to minimize injury or mortality of desert tortoises due to project construction, operation and maintenance; and most actions involving habitat disturbance.

Terms and Conditions:

- 1.a. *Field Contact Representative*—BLM shall ensure a Field Contact Representative (FCR) (also called a Compliance Inspection Contractor) is generally designated for each contiguous stretch of construction activity for linear projects or isolated work areas for non-linear projects. The FCR will serve as an agent of BLM and the Service to ensure that all instances of non-compliance or incidental take are reported. BLM has discretion over approval of potential FCRs; however, those who also may be acting as authorized desert tortoise biologists, and must also be approved by the Service (see Term and Condition 1.c). All FCRs will report **directly** to BLM and the Service.

The FCR, authorized desert tortoise biologist, and monitors (see Term and Condition 1.d.) shall have a copy of all stipulations when work is being conducted on the site and will be responsible for overseeing compliance with terms and conditions of the ROW grant, including those for listed species. BLM shall ensure the FCR and authorized desert tortoise biologists have authority to halt any activity that is in violation of the stipulations. The FCR shall be on site year-round during all project activities.

Within 3 days of employment or assignment, the project proponent and BLM shall provide the Service with the names of the FCR.

- 1.b. *Authorized desert tortoise biologist*— This project will require an authorized

desert tortoise biologist, monitor, or other approved by the BLM to present a tortoise education program to workers; is required to be on site during the desert tortoise active season (March 1 to October 31); and is required to be on call during the inactive season (November 1 to February 28/29) for construction activities associated with this project.

All authorized desert tortoise biologists (and monitors) are agents of BLM and the Service and shall report directly to BLM and the proponent concurrently regarding all compliance issues and take of desert tortoises; this includes all draft and final reports of non-compliance or take. The initial draft report shall be provided to BLM and Service within 24 hours of the observation of take or non-compliance.

An authorized desert tortoise biologist will be assigned to each piece/group of large equipment engaged in activities that may result in take of desert tortoise (e.g., clearing, blasting, grading, lowering in pipe, hydrostatic testing, backfilling, recontouring, and reclamation activities) and other work areas that pose a risk to tortoises. BLM may use their discretion to require a monitor instead of an authorized desert tortoise biologist to monitor equipment that is low risk to tortoises.

1. c. Authorized desert tortoise biologists, monitors, and the FCR (see Term and Condition 1.a.) shall be responsible for ensuring compliance with all conservation measures for the project. This responsibility includes: (1) enforcing the litter-control program; (2) ensuring that desert tortoise habitat disturbance is restricted to authorized areas; (3) ensuring that all equipment and materials are stored within the boundaries of the construction zone or within the boundaries of previously-disturbed areas or designated areas; (4) ensuring that all vehicles associated with construction activities remain within the proposed construction zones; (5) ensuring that no tortoises are underneath project vehicles and equipment prior to use or movement; (6) ensuring that all monitors (including the authorized desert tortoise biologist) have a copy of the required measures in their possession, have read them, and they are readily available to the monitor when on the project site.

An authorized desert tortoise biologist will serve as a mentor to train desert tortoise monitors and will approve monitors if required. An authorized desert tortoise biologist is responsible for errors committed by desert tortoise monitors. An authorized desert tortoise biologist shall record each observation of desert tortoise handled in the tortoise monitoring reports. Information will include the

following: location (GPS), date and time of observation, whether the desert tortoise was handled, general health and whether it voided its bladder, location desert tortoise was moved from and location moved to, unique physical characteristics of each tortoise, and effectiveness and compliance with the desert tortoise protection measures. This information will be provided **directly** to BLM and the Service.

An authorized desert tortoise biologist should possess a bachelor's degree in biology, ecology, wildlife biology, herpetology, or closely related field. The biologist must have demonstrated prior field experience using accepted resource agency techniques. As a guideline, Service approval of an authorized biologist requires that the applicant have at least 60 days project experience as a desert tortoise monitor. In addition, the biologist shall have the ability to recognize and accurately record survey results and must be familiar with the terms and conditions of the biological opinion that resulted from project-level consultation between BLM and the Service. All tortoise biologists shall be familiar with the field manual (Service 2009).

Potential authorized desert tortoise biologists must submit their statement of qualifications to the Service's Nevada Fish and Wildlife Office in Las Vegas for approval, allowing a minimum of 30 days for Service response. The statement form is available on the internet at:

http://www.fws.gov/nevada/desert_tortoise/auth_dt_form.htm.

Prior to final approval to begin work on the project, the authorized desert tortoise biologists will have read the required measures (terms and conditions and other stipulations) and have a copy of the measures available at all times while on the project site. BLM shall provide the appropriate agency contact for the project to the Service and the Service will include the forms with approval letters. Biologists and monitors should be visibly identifiable on the project site, which may include use of a uniquely designated hardhat or safety vest color.

1. d. Desert tortoise monitor—**Required to be on site during maintenance activities using heavy equipment outside of the fence during the desert tortoise active season (March 1 – October 31).** Desert tortoise monitors assist an authorized desert tortoise biologist during surveys and serve as apprentices to acquire experience. Desert tortoise monitors ensure proper implementation of protective measures and record and report desert tortoises and sign observations in accordance with Term and Condition 1.c. They will report incidents of

noncompliance to the authorized desert tortoise biologist or FCR. No monitors shall be on the project site unless supervised by an authorized desert tortoise biologist or approved by the BLM.

If a desert tortoise is immediately in harm's way (e.g., certain to immediately be crushed by equipment), desert tortoise monitors may move the desert tortoise and place it in a designated safe area until an authorized desert tortoise biologist assumes care of the animal.

Desert tortoise monitors may not conduct field or clearance surveys or other specialized duties of an authorized desert tortoise biologist unless directly supervised by an authorized desert tortoise biologist or approved to do so by the Service; "directly supervised" means an authorized desert tortoise biologist has direct sight and voice contact with the desert tortoise monitor (i.e., within approximately 200 ft of each other).

Within 3 days of employment or assignment, the project proponent and BLM shall provide the Service with the names of desert tortoise monitors who would assist an authorized desert tortoise biologist.

- 1.e. ***Desert tortoise education program***—A desert tortoise education program shall be presented to all personnel on site during construction activities by an authorized desert tortoise biologist, monitor, or other approved by the BLM. The Service, BLM, and appropriate state agencies shall approve the program. At a minimum, the program shall cover desert-specific Leave-No-Trace guidelines, the distribution of desert tortoises, general behavior and ecology of this species, sensitivity to human activities, threats including introduction of exotic plants and animals, legal protection (the definition of "take" will also be explained), penalties for violation of State and Federal laws, reporting requirements, and project measures in this biological opinion. All field workers shall be instructed that activities must be confined to locations within the approved areas and their obligation to walk around and check underneath and vehicles and equipment before moving them (or be cleared by an authorized desert tortoise biologist). Workers and project associates will be encouraged to carpool to and from the project sites. In addition, the program shall include fire prevention measures to be implemented by employees during project activities. The program shall instruct participants to report all observations of desert tortoise and their sign during construction activities to the FCR and authorized desert tortoise biologist.

- 1.f. *Vehicle travel*— Project personnel shall exercise vigilance when commuting to the project area to minimize risk for inadvertent injury or mortality of all wildlife species encountered on paved and unpaved roads leading to and from the project site. Speed limits will be clearly marked, and all workers will be made aware of these limits. On-site, personnel shall carpool to the greatest extent possible.

During the desert tortoise less-active season (generally November through February), vehicle speed on project-related access roads and in the work area will not exceed 25 mph. All vehicles and construction equipment will be tightly grouped.

During the more-active season (generally March through October), and if temperatures are above 60 but below 95 °F for more than 7 consecutive days, vehicle speed on project-related access roads and in the work area will not exceed 15 mph. All vehicles and construction equipment will operate in groups of no more than three vehicles.

New access and spur road locations will be sited to avoid potentially active tortoise burrows to the maximum extent practicable.

- 1.g. *Unauthorized access*—BLM shall ensure that unauthorized personnel, including the public and off-duty project personnel, do not travel on project-related temporary access roads, to the greatest extent practicable.

During the more-active season (generally March through October), and if temperatures are above 60 but below 95 °F for more than 7 consecutive days, project- and non-project-related activities on all access roads that intersect the ROW will be monitored and logged. During construction, the ROW will be fenced at public roads that intersect the ROW. Signs will say that access on the ROW is strictly prohibited except by authorized personnel and that violators will be prosecuted.

- 1.h. *Desert tortoise clearance*—not required for this project.

- 1.i. *Desert tortoise in harm's way*—Any project-related activity that may endanger a desert tortoise shall cease if a desert tortoise is found on the project site. Project activities may resume after an authorized desert tortoise biologist or desert tortoise monitor (see restrictions in Term and Condition 1.d.) removes the desert tortoise from danger or after the desert tortoise has moved to a safe area on its own.

During the more-active season and if temperatures are above 60 but below 95 °F for more than 7 consecutive days, at least 1 monitor shall be assigned to observe spoil piles prior to excavation and covering.

- 1.j. *Handling of desert tortoises*—Desert tortoises shall only be moved by an authorized desert tortoise biologist or desert tortoise monitor (see restrictions in Term and Condition 1.d.) solely for the purpose of moving the tortoises out of harm's way. During construction, operation, and maintenance, an authorized desert tortoise biologist shall pen, capture, handle, and relocate desert tortoises from harm's way as appropriate and in accordance with the most current Service-approved guidance. No tortoise shall be handled by more than one person. Each tortoise handled will be given a unique number, photographed, and the biologist will record all relevant data on the Desert Tortoise Handling and Take Report (Appendix E) to be provided to BLM in accordance with the project reporting requirements.

Desert tortoises that occur aboveground and need to be moved from harm's way shall be placed in the shade of a shrub, 150 to 1,640 ft from the point of encounter. In situations where desert tortoises must be moved more than 1,640 ft (500 m), translocation procedures may be required. Translocation would likely result in a level of effect to the desert tortoise that would require the appended procedures.

If desert tortoises need to be moved at a time of day when ambient temperatures could harm them (less than 40 ° F or greater than 95° F), they shall be held overnight in a clean cardboard box. These desert tortoises shall be kept in the care of an authorized biologist under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes shall be discarded after one use and never hold more than one tortoise. If any tortoise active nests are encountered, the Service must be contacted immediately, prior to removal of any tortoises or eggs from those burrows, to determine the most appropriate course of action.

Desert tortoises located in the project area sheltering in a burrow during the less-active season may be temporarily penned in accordance with Term and Condition 1.k. at the discretion of an authorized desert tortoise biologist. Desert tortoises should not be penned in areas of moderate to heavy public use, rather they should be moved from harm's way in accordance with the most current Service-approved guidance (currently Service 2009).

Desert tortoises shall be handled in accordance with the Desert Tortoise Field Manual (Service 2009). Equipment or materials that contact desert tortoises (including shirts and pants) shall be sterilized, disposed of, or changed before contacting another tortoise to prevent the spread of disease. All tortoises shall be handled using disposable surgical gloves and the gloves shall be disposed of after handling each tortoise. An authorized desert tortoise biologist shall document each tortoise handling by completing the Desert Tortoise Handling and Take Report (Appendix E).

- 1.k. *Penning*—Not required for this project.
- 1.l. *Temporary tortoise-proof fencing*—Not required for this project.
- 1.m. ***Permanent tortoise-proof fencing***—Permanent tortoise fencing should be installed along the bottom of the existing fence according to specifications. Particular attention should be paid to the large gap under the entrance gate where tortoises may easily enter.
- 1.n. *Wildlife escape ramps*—Not required for this project. See measure 8.d. for trenches.
- 1.o. *Dust control*—Water applied to for dust control shall not be allowed to pool outside desert-tortoise fenced areas, as this can attract desert tortoises. Similarly, leaks on water trucks and water tanks will be repaired to prevent pooling water. An authorized desert tortoise biologist will be assigned to patrol each area being watered immediately after the water is applied and at approximate 60-minute intervals until the ground is no longer wet enough to attract tortoises if conditions favor tortoise activity.
- 1.p. *Blasting*— Not required for this project.
- 1.q. *Power transmission projects*— Transmission line support structures and other facility structures shall be designed to discourage their use by raptors for perching or nesting (e.g., by use of anti-perching devices) in accordance with the most current Avian Power Line Interaction Committee guidelines (see terms and conditions 2.b.).
- 1.r. *Timing of construction*—The BLM shall ensure that when possible, the project proponent schedules and conducts construction, operation, and maintenance activities within desert tortoise habitat during the less-active season (generally November 1 to February 28/29) and during periods of reduced desert tortoise

activity (typically when ambient temperatures are less than 60 or greater than 95 °F).

All vehicles and equipment that are not in areas enclosed by desert tortoise exclusion fencing will stop activities in desert tortoise habitat during rainfall events in the more-active season (generally March 1 to October 31), and if temperatures are above 60 but below 95 °F for more than 7 consecutive days. The Field Contact Representative (FCR) or designee will determine, in coordination with the BLM and Service, when it is appropriate for project activities to continue.

RPM 2: Predator Control— Applies to all actions. *BLM, and other jurisdictional Federal agencies as appropriate, shall ensure their agency personnel, the project proponent, and their contractors implement the following measures to minimize injury to desert tortoises as a result of predators drawn to the project area from construction, operation, and minor maintenance activities:*

Terms and Conditions:

- 2.a. *Litter control, applies to all projects*—A litter control program shall be implemented to reduce the attractiveness of the area to opportunistic predators such as desert kit foxes, coyotes, and common ravens. Trash and food items will be disposed of properly in predator-proof containers with predator-proof lids. Trash containers will be emptied and construction waste will be removed daily from the project area and disposed of in an approved landfill. Vehicles hauling trash to the landfill or transfer facility must be secured to prevent litter from blowing out along the road.
- 2.b. *Deterrence*—The project proponent will implement measures to discourage the presence of predators on site (coyotes, ravens, etc.), including elimination of available water sources, designing structures to discourage potential nest sites, and use of hazing to discourage raven presence.
- 2.c. *Monitoring and predator control*—Not applicable for the proposed action.
- 2.d. *Evaporation ponds and open water sources*—Not applicable for the proposed action.

RPM 3: Impacts to Desert Tortoise Habitat—Applies towards all actions that involve habitat impacts. *BLM, and other jurisdictional Federal agencies as*

appropriate, shall ensure their agency personnel, the project proponent, and their contractors implement the following measures to minimize loss and long-term degradation and fragmentation of desert tortoise habitat, such as soil compaction, erosion, crushed vegetation, and introduction of weeds or contaminants from construction, operation, and minor maintenance activities:

Terms and Conditions:

- 3.a. *Habitat protection plans*—If requested by BLM, applicants will have a fire prevention and response plan, erosion control plan, and a weed management plan in place prior to surface disturbance.
- 3.b. *Restoration plan*—The applicant will develop and implement a restoration/reclamation plan if required by BLM. The plan will describe objectives and methods to be used, species of native plants and/or seed mixture to be used, time of planting, success standards, actions to take if restoration efforts fail to achieve the success standards, and follow-up monitoring. The plan will be prepared and approved prior to the surface disturbance phase of the project. Reclamation will be addressed on a case-by-case basis.
- 3.c. *Minimizing new disturbance*—Cross-country travel outside designated areas shall be prohibited. All equipment, vehicles, and construction materials shall be restricted to the designated areas and new disturbance will be restricted to the minimum necessary to complete the task (*e.g.*, such as construction of one-lane access roads with passing turnouts every mile rather than a wider two-lane road).

All work area boundaries shall be conspicuously staked, flagged, or otherwise marked to minimize surface disturbance activities.
- 3.d. *Weed prevention*—Vehicles and equipment shall be cleaned with a high pressure washer prior to arrival in desert tortoise habitat and prior to departure from areas of known invasive weed and nonnative grass infestations to prevent or at least minimize the introduction or spread these species.
- 3.e. *Chemical spills*—Hazardous and toxic materials such as fuels, solvents, lubricants, and acids used during construction will be controlled to prevent accidental spills. Any leak or accidental release of hazardous and toxic materials will be stopped immediately and cleaned up at the time of occurrence. Contaminated soils will be removed and disposed at an approved landfill site.
- 3.f. *Residual impacts from disturbance*— As proposed, this project will disturb 0 acres

of desert tortoise habitat; therefore, no remuneration fees are required.

RMP 7: Compliance and Reporting—Applies towards all actions. *BLM, and other jurisdictional Federal agencies as appropriate, shall ensure their agency personnel, the project proponent, and their contractors implement the following measures to comply with the reasonable and prudent measures, terms and conditions, reporting requirements, and reinitiation requirements contained in this biological opinion:*

Terms and Conditions:

- 7.a. *Desert tortoise deaths*—The deaths and injuries of desert tortoises shall be investigated as thoroughly as possible to determine the cause. The Service (702/515-5230), BLM wildlife staff (702/515-5000) and appropriate state wildlife agency must be verbally informed immediately and within 5 business days in writing (electronic mail is sufficient). The Authorized Desert Tortoise Biologist shall complete the Desert Tortoise Handling and Take Report (Appendix E).
- 7.b. *Non-compliance*—Any incident occurring during project activities that was considered by the FCR, authorized desert tortoise biologist, or biological monitor to be in non-compliance with this biological opinion shall be immediately documented by an authorized desert tortoise biologist. Documentation shall include photos, GPS coordinates, and details on the circumstances of the event. The incident will be included in the annual report and post-project report.
- 7.c. *Fence inspection*—Fencing is not required for this project.
- 7.d. *Project reporting requirements*— Project proponents will provide BLM with compliance reports. Quarter (non-appended actions), annual, and comprehensive final project reports will be submitted to BLM and the Service's Nevada Fish and Wildlife Office in Las Vegas. Annual reports are required for all appended actions (except those completed and provided in a prior annual report). Annual reports will cover the calendar year and are due April 1st of the following year (e.g., the annual report for calendar year 2014 is due April 1, 2015). Quarterly reports for non-appended actions are due 15 calendar days following the quarter. Final project reports are due within 60 days following completion of the project or each phase of the project.

The Programmatic Biological Opinion Report to the Fish and Wildlife Service

(Appendix G) will be used for quarterly, annual, and final project reports, and shall include all Desert Tortoise Handling and Take Reports (Appendix E). If available, GIS shape files will be included.

- 7.e. *Operation and maintenance***—A written assessment report shall be submitted annually to the Service outlining the operation and maintenance activities that occurred over the past year.

Report to include: It will include frequency of implementation of minimization measures, biological observations, general success of each of the minimization measures. All deaths, injuries, and illnesses of endangered or threatened species within the project area, whether associated with project activities or not, will be summarized in the annual report. The report is due April 1 of each year.

- 7.f. *Restoration monitoring***—Not required for this project.

8: Minimization Measures

- 8.a. *The project applicant shall notify BLM wildlife staff at 702-515-5000 at least 10 days before initiation of the project.*** Notification shall occur before any activities begin that will damage or remove vegetation, such as off-road vehicle travel for surveys, soil testing, and clearing vegetation off the project site. The purpose of the notification is to ensure that the proper education program is given and to review expectations for compliance with the terms and conditions of the biological opinion.
- 8.b.** Overnight parking and storage of equipment and materials, including stockpiling, shall be in previously disturbed areas or areas cleared by a tortoise biologist. If not possible, areas for overnight parking and storage of equipment shall be designated by the tortoise biologist in coordination with BLM and project proponent, which will minimize habitat disturbance.
- 8.c.** Within desert tortoise habitat, any construction pipe, culvert, or similar structure with a diameter greater than 3 inches stored less than 8 inches above the ground will be inspected for tortoises before the material is moved, buried, or capped.
- 8.d.** Trenches: All trenches and holes will be covered, fenced or backfilled to ensure desert tortoises do not become trapped unless alternate measures are in place as agreed by BLM and the Service. If trenches or holes are to remain open during construction, they will be checked for tortoises at least four times a day, at the start of day, at mid-morning, early afternoon, and at the end of the work day. The trenches or holes will also be checked immediately before backfilling regardless

of the season. Tortoises found in the trench will be reported and moved out of harm's way in accordance with handling protocols (Service 2009).

- 8.e. Ravens and other avian tortoise predators: All towers and poles will be fitted with perch deterrent devices to minimize the potential for increased predation from aerial predators following construction.
- 8.f. Vehicles: All project/event-related individuals shall check underneath stationary vehicles before moving them. Tortoises often take cover under vehicles. All vehicle use will be restricted to existing roads. New access roads will be created only when absolutely necessary and only when approved by BLM. Workers shall not drive or park vehicles where catalytic converters can ignite dry vegetation and to exhibit care when smoking in natural areas. Fire protective mats or shields shall be used during grinding or welding.

Minimization Measures to Minimize Threat of Nonnative Plants

- 8.g. Rehabilitate, reclaim, or revegetate areas subjected to surface-disturbing activities where feasible. Habitat will be reclaimed so that pre-disturbance conditions can be reached within a reasonable time frame. Reclamation may include salvage and transplant of cacti and yucca, recontouring the area, scarification of compacted soil, soil amendments, seeding, vertical mulch, and transplant of seedling shrubs. If necessary subsequent seeding or transplanting efforts may be required, should monitoring indicate that the original effort was not successful.
- 8.i. If off-site fill material is used, survey the site where the fill source comes from for noxious plants. Only fill from non-contaminated sites shall be used.
- 8.j. Certify that all plant material including animal feed and material used for erosion control (straw, etc.) is weed-free.
- 8.k. Clean all equipment of weed and grass seeds, stems, stalks, etc., prior to arrival and release from the project site. The washdown will concentrate on the undercarriage, with special emphasis on axles, crossmembers, motor mounts, and on and underneath steps, running boards and front bumper/bushguard assemblies.
- 8.l. Should there be concentrated areas of noxious weeds within the project area, additional spraying of equipment may be required to prevent the contamination of uninfested areas.

APPENDIX E. DESERT TORTOISE HANDLING AND TAKE REPORT

If a desert tortoise is killed or injured, immediately contact the U.S. Fish and Wildlife Service and BLM, by phone at the numbers below and complete Section 1 of the form.

Completed forms should be submitted to the BLM and Fish and Wildlife Service:

Bureau of Land Management
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130
702-515-5000

US. Fish and Wildlife Service
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130
702-515-5230

Project Name: Goodsprings Substation Expansion NEPA No.: DOI-BLM-NV-S010-2014-0144-CX Case File No./SRP No.: N-93326, N-93326-01 BLM Section 7 log no.: NV-052-14-215	Report Date:
Fish and Wildlife Service Append File No.- n/a	
Authorized Desert Tortoise Biologist: _____ Employed by: _____	
Section 1: Complete all information below if a desert tortoise is injured or killed in addition to initial contact described above.	
If tortoise was injured <input type="checkbox"/> or killed <input type="checkbox"/> (check appropriate box):	
Date and time found: _____ Found by: _____ GPS location (NAD 83): easting: _____ northing: _____ No. of photos taken: _____ Disposition: _____ _____	
Attach report with photos that describe in detail, the circumstances and potential cause of injury or mortality. For injuries include name of veterinarian and detailed assessment of injuries.	

Section 2: Complete all information below for each desert tortoise handled.

All instances of desert tortoise handling must be reported in this section and be included in the quarterly, annual, and final project reports.

Desert tortoise number: _____

Date and time found: _____ Sex of tortoise: _____

Air temperature when found: _____ Air temperature when released: _____

Tortoise activity when found: _____

Handled by: _____ Approx. carapace length _____

GPS location (NAD 83) found: easting: _____ northing: _____

GPS location released: easting: _____ northing: _____

Approximate distance moved: _____

Did tortoise void bladder; if so state approximate volume and actions taken:

Post handling or movement monitoring and observations:

Section 3: Complete for each tortoise burrow penned.

All instances of desert tortoise penning must be reported in this section and be included in the quarterly, annual, and final project reports.

Date and time of pen construction:

Began: _____ Completed: _____

Date and time pen removed:

Pen constructed by:

Why was tortoise penned?

How frequently was pen monitored?

Observations of desert tortoise behavior including time and date of observation:

Include photos of pen and burrow with report.

APPENDIX G. PROGRAMMATIC BIOLOGICAL OPINION (FILE NO. 84320-2010-F-0365) REPORT TO THE FISH AND WILDLIFE SERVICE

The information below should be completed by BLM or the Authorized Desert Tortoise Biologist for the project/action. Reports for all appended actions are required annually (due March 1 of each year for prior calendar year activities) and upon completion of the project/action.

Project Name: Goodsprings Substation Expansion
NEPA no.: DOI-BLM-NV-S010-2014-0144-CX
Case File no./SRP no.: N-93326, N-93326-01
BLM Section 7 log no.: NV-052-14-215

☐

Annual Report

☐

Project Completion Report

1. Date: _____

2. Fish and Wildlife Service File No (for appended actions): n/a

3. Species and critical habitat affected:

☒

Desert tortoise

☐

Desert tortoise critical habitat

Other (identify): _____

4. Project/action status:

☐

Not begun

☐

In progress*

☐

Completed

date _____

If in progress, state approximate percent complete: _____

5. Desert tortoise habitat disturbed:

Non-critical habitat		Critical habitat	
Proposed disturbance (ac)	Actual disturbance (ac)	Proposed disturbance (ac)	Actual disturbance (ac)
0		0	

6. Habitat of other species disturbed (identify species, non-critical, and critical habitat affected below):

7. Summary of individual desert tortoises taken (appended action):

	Desert Tortoise:		
	Adults	Juveniles	Eggs
Exempted			
Actual			

Describe other individuals taken:

8. Name of authorized desert tortoise biologists and monitors on the project and the dates they were on the project.

9. Describe all non-compliance issues and events.

10. Desert tortoise burrow observed during activity/event:

Total number desert tortoises observed: _____

Total number desert tortoise burrows observed: _____

Attach a summary report detailing each desert tortoise and/or desert tortoise burrows observed during activity/event including tortoise activity when found, how the animal was avoided, what happened to the tortoise, the date and time encountered and GPS location (NAD 83 easting: _____ northing: _____)

11. Contact Information

Name _____ Company _____

Address _____

Phone _____

Signature _____ Date _____

Send completed form to:

Bureau of Land Management
Attn: Wildlife Staff
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130
702-515-5000
U.S. Fish and Wildlife Service
4701 North Torrey Pines Drive



CLARK COUNTY
LAS VEGAS OR DIST

STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES

MT PLAT[illegible]

THE CHAIRMAN REQUESTED REPLYING TO THE USE OF
CONNECTIONS WITH RESEARCH AND CLINICAL
ANALYSIS, BUT THE OTHER PANEL MEMBERS
WERE IN AGREEMENT WITH THE RESEARCHERS.

[illegible]

PL 95-608

[illegible][illegible][illegible][illegible]

© 2005 Blackwell Publishing Ltd, *Journal of Internal Medicine* 257: 103–110

[illegible]

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

12-11-2000 10:10 AM

Figure 1. A schematic diagram of the experimental design. The diagram shows a sequence of events: a participant is shown a stimulus (a word or picture), then they are asked to respond (e.g., 'Is this a word?'), and finally, they are asked to provide a rating (e.g., 'How difficult was this?'). The diagram also indicates that the participant's response and rating are recorded and used for analysis.

© 2013 by the author; licensee Bentham Science Publishers. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0/>).

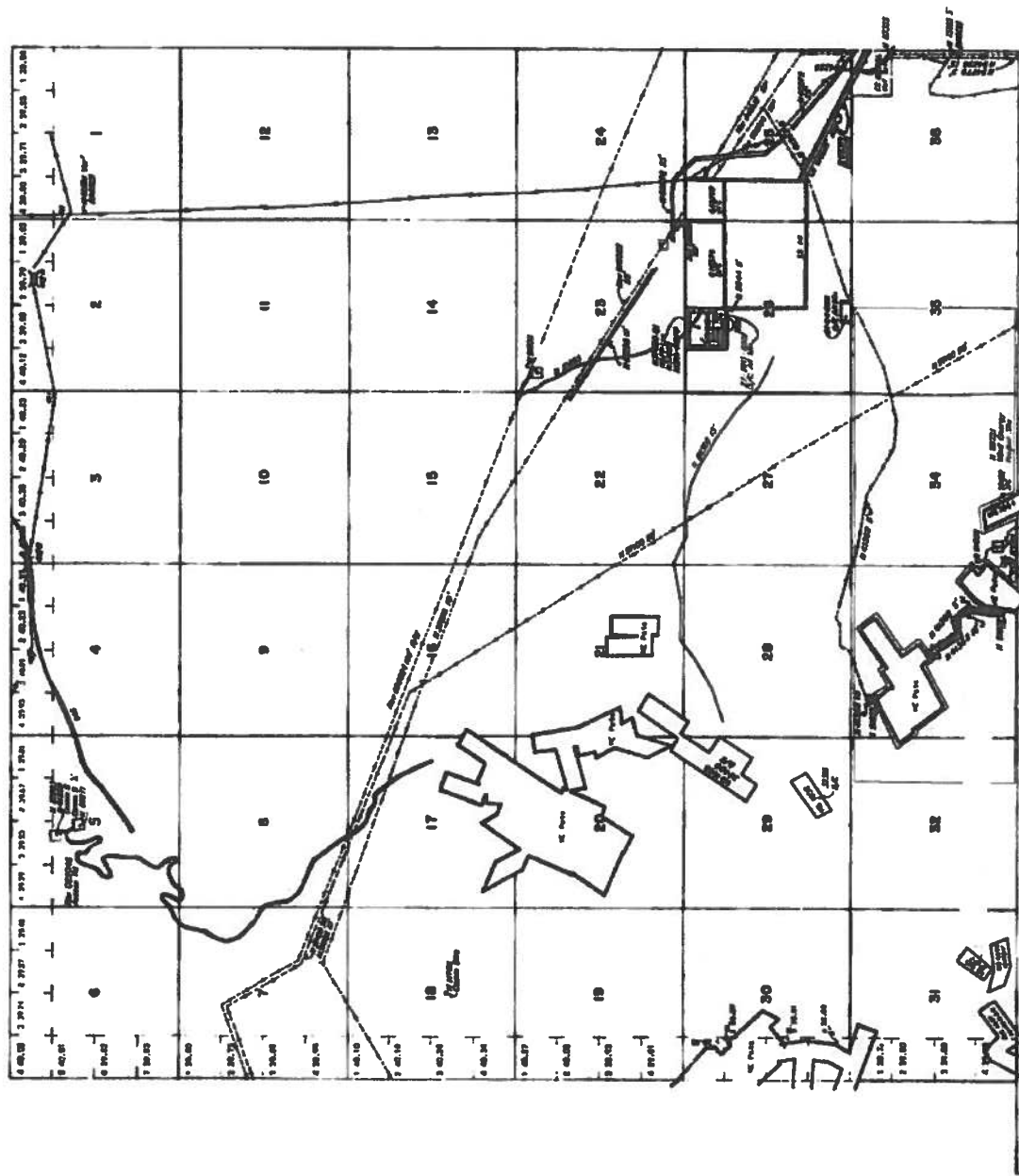
488

Customer ID	MS
Order ID	MS
Order Date	11/16/11
Order Status	AS

3/14/11	MS
9/13/11	MS
3/1/13	DMG
2/2/13	DMG

[illegible]

--	--



STANDARDIZATION

SCALE
20 STONES TO THE TON

W-000
P. 240
P. 000

Desert Tortoise

Training

The Threatened Desert Tortoise

Life History

The desert tortoise is the largest reptile and the only wild land tortoise found in the southwestern United States. The tortoise occurs in southern Nevada, western Arizona, southeastern California, and northwestern Mexico. Desert tortoises are typically found in creosote bush, cactus and shad scale scrub, and Joshua tree woodland habitats below 5000' elevation.

Tortoise populations are patchily distributed and densities range from a few per square mile to 200 per square mile. A tortoise will live in the same general area of less than one square mile during its lifespan of 50 to 100 years. This slow-moving desert reptile ranges in size from 2 to 15 inches long and is soil colored. Because of their color and shape, tortoises can be very difficult to see.

There are several clues that can be used to tell male and female tortoises apart. However, only tortoises greater than seven inches long can be sexed reliably. Males tend to be larger than females, have a longer tail, have longer upward curving gular horns, have larger chin glands, and have a concave plastron (bottom portion of shell).



Tortoises are well adapted to their desert environment and spend up to 98% of their time in burrows they dig. Burrows are crescent shaped and are most often found at the base of desert shrubs or in wash banks. A

tortoise may excavate and use many burrows during the year. Some burrows are used for only a short period of time and others may be used for several years. Some researchers believe that some winter dens on the Beaver Dam Slope in Utah may be 5000 years old. Many mammals, birds, reptiles, and invertebrates utilize tortoise burrows. Burrows and tortoises are most often found on valley floors and slopes, but they may also be found on the less precipitous slopes and ridges of desert mountain ranges.

Besides burrows, and remains; another method that biologists use to determine if tortoises exist in an area is the presence of scat (feces). Fresh scat is dark brown or black, but turns gray as it weathers. Scat length varies, from one half to four inches, depending on the size of the tortoise. Scats usually contain coarse plant fibers.

Tortoises are inactive from mid November until February. The activity period for desert tortoises is from March until late October when they usually spend part of each day above ground. Tortoises are especially active during warm days when it is overcast or raining, when they seek water that collects in natural depressions or in depressions the tortoises dig themselves. Available drinking water is essential to tortoise survival. The diet of tortoises, which are vegetarians, includes a wide variety of herbs, grasses, cacti, and flowers. Since droughts are common in the desert that tortoises inhabit, they rely on the erratic years of good rainfall and the ensuing growth of palatable plants.



Sexual maturity for tortoises occurs at 15-20 years of age. Breeding occurs in March and April and egg laying is from May to July. Nests are almost always located at the entrance of burrows. Clutches 1 to 14 eggs and a mature female may lay 0 to 3 clutches annually. The eggs are covered with soil and hatch after 80 to 130 days in August or September.

Predators are usually only a problem for young tortoises. Predation is the greatest cause of mortality for hatchlings. Eggs are eaten by Gila monsters, foxes, coyotes, snakes, and badgers. The shell of juvenile tortoises does not harden for five or more years and young tortoises may fall prey to ravens, hawks, eagles, coyotes, foxes, bobcats, badgers, skunks, and feral dogs and cats. Up to 200 young tortoise carcasses have been found under raven perches and nests. While successful predation on adults is rare; coyotes, foxes, bobcats, eagles, and feral dogs have been known to prey on adult tortoises. Habitat quality can affect predation in certain habitats.

Research

The Bureau of Land Management will be actively involved ongoing research projects that are addressing various aspects of tortoise management and physiology. Research is being conducted on disease, livestock grazing, predator-prey relationships, genetics, tortoise translocation/relocation, and habitat restoration.

Legal Status

The desert tortoise (*Gopherus agassizii*) in the Mojave Desert was federally listed under the Endangered Species Act of 1973 as a threatened species on April 2, 1990. The tortoise was listed because of direct losses and threats to tortoise populations and habitat. Desert tortoises are directly impacted by increased raven predation on juveniles, collection by humans, vandalism, losses on roads and to off-highway vehicle (OHV) activities, and Upper Respiratory Tract Disease (URTD). Tortoise habitat is lost directly to urbanization, agriculture, road construction, military activities, and other uses. OHV use, rights-of-way, and grazing degrade habitat. All of these activities fragment tortoise habitat, which may reduce a tortoise population below the level necessary to maintain a minimum viable population.

The U.S. Endangered Species Act makes it illegal to harass, collect, or harm tortoises and provides for penalties of up to \$50,000 in fines and one year in prison for each count. State laws and Fish and Game Codes also afford protection to the desert tortoise.



Legal Status continued..

The Endangered Species Act allows for individuals of and endangered or threatened species to be taken incidentally to an otherwise lawful activity; as long as the conditions of the Fish and Wildlife Service's (Service) Biological Opinion are followed. "Take" includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing or collecting, or attempting to engage in any such conduct. Harm includes significant habitat modification or degradation that impacts a listed species by interfering with breeding, feeding, or sheltering behavior. The threatened listing of the desert tortoise occurred because of widespread habitat destruction and degradation, illegal collection, disease, raven predation, and other factors.

Tortoises in captivity prior to the initial listing of August 4, 1989 are no protected by the Act. If you are interested in having a pet tortoise, you may obtain one from an adoption group or from someone that has acquired their pet legally and gifted them to you. Tortoises can offer a unique alternative to more traditional family pets but please do not turn them loose or allow your tortoises to breed.



Tortoise Handling

Handle all tortoise carefully and only if authorized to do so! Tortoises can be injured and can die from improper handling. Do not approach tortoises unless absolutely necessary, as your presence can induce stress in the animal. When you must approach a tortoise, move slowly and approach from the rear of the animal. Pick up the tortoise gently and keep it level at all times. When handling large tortoises, grasp the animal with both hands, one at each side of the animal. When moving tortoises

longer distances, a plastic tote or cardboard box should be used. Containers should be thoroughly cleaned between tortoises or only used for one tortoise. All personnel handling tortoises will wear surgical type gloves to inhibit the transmission of diseases among tortoises. Not more than one tortoise can be handled

Remember to always check under your vehicles!!

Southern Nevada District

